Personal Expense Analysis

Task Statement

This project analyzes my personal monthly spending using real transaction data exported from my bank. The analysis was initiated to better understand my spending behavior and identify patterns that lead to budget overruns.

Key Questions

- Which categories drive the majority of my spending?
- Do high-frequency expenses add up over time?
- When and do I tend to overspend?
- Based on my spending structure, which categories should be prioritized if I need to reduce total expenses by 5-10%?

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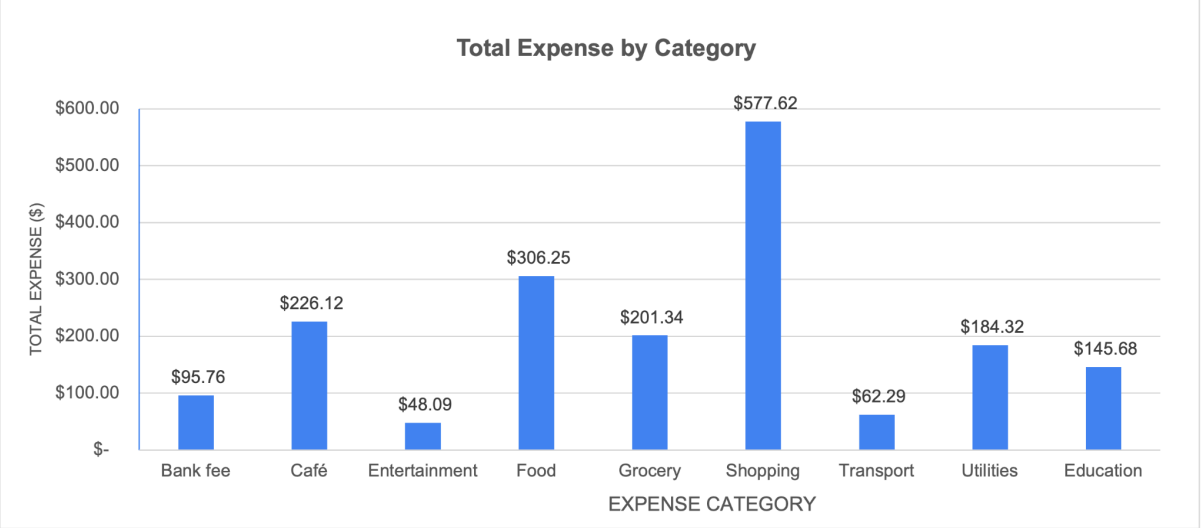
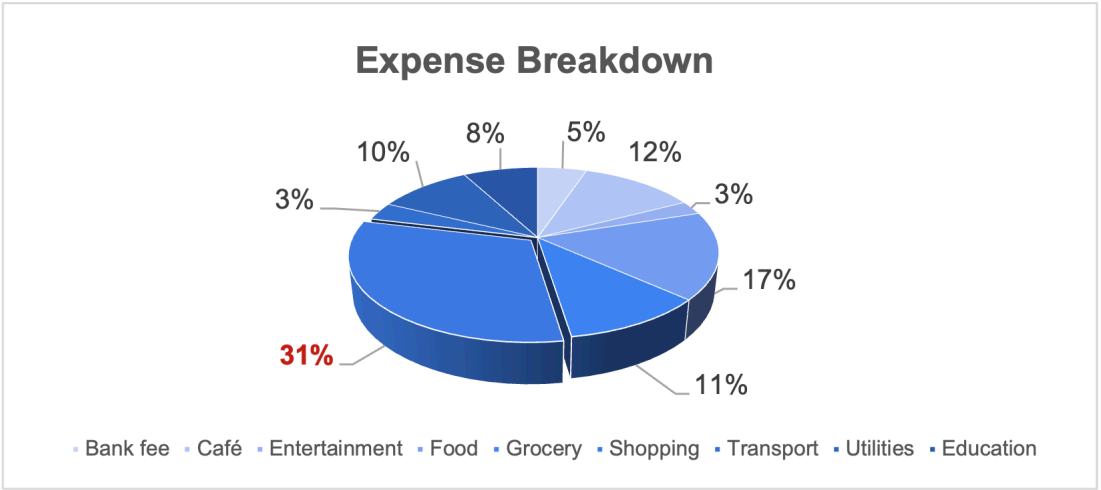
1. Identifying Major Spending Categories

This analysis reveals which expense categories account for the largest share of total monthly spending in order to identify the primary spending during Oct to Dec.





Key Insight:

1. **Shopping** category for the largest share of total monthly spending **(31%)**, driving the majority of my spending. As shopping is not a discretionary cost, it represents **the most flexible area for budget reduction**.
2. Food category expenses are less elastic; however, **café** spending **(10%)** presents an opportunity to reduce costs without affecting daily necessities.
3. **Bank fee** is driven by late payment penalties and is not expected to recur. This suggests to me that this expense is avoidable **with improved payment management**.
4. Utilities and education expenses represent stability with limited short-term flexibility.

Analysis Notes

- Total expenses by category (SUM by category)
- Spending was aggregated by category (bar chart)
- Category-level contributions were compared using percentage distribution (pie chart)

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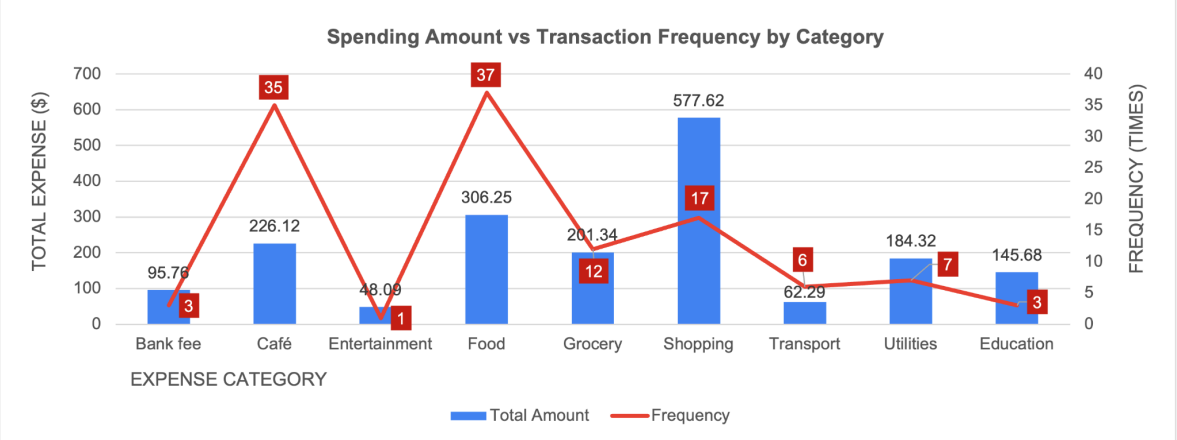
2. Analyzing Spending Frequency

To examine whether high spending is driven by transaction frequency or transaction size.



Key Insight:

1. **Café** spending has the **highest transaction frequency**, indicating frequent small purchases.
2. In the Shopping category, showing that **large transaction value**s are the primary driver of costs, not the frequency.
3. Entertainment is low frequency and low total spending, indicating limited potential impact from reducing spending.
4. Two reducing spend strategies: **frequency reduction** for habitual spending (e.g.,Café), **value control** for high-value purchases (e.g., shopping).

Analysis Notes

- Total expenses by category (SUM by category)
- Spending frequency by category (COUNT, combo chart)

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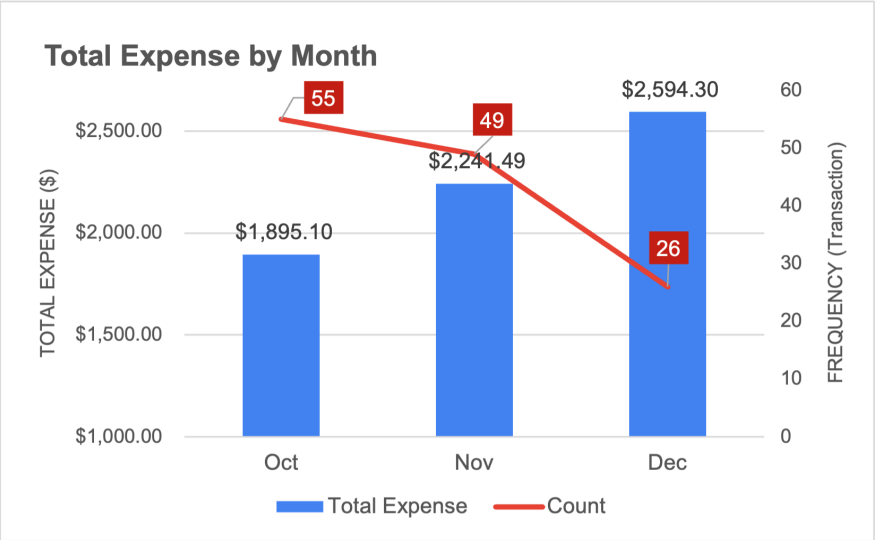
3. Monthly Spending Trends

In this section, I examined monthly spending trends and frequency to understand how total expenses and transaction frequency change over time in Q4.



Key Insight:

1. From October to December, total spending increased while transaction frequency declined. This suggests that **higher monthly expenses were driven by fewer, higher-value transactions**.
2. Spending increased in November and December, likely **influenced by seasonal factors** such as holiday shopping and year-end activities.

Analysis Notes

- Total expenses by month (SUM by month)
- Spending frequency by category (COUNT, combo chart)

Recommendations

1. Target high-frequency discretionary spending such as café spending, by reducing purchase frequency softly rather than eliminating the category entirely.
2. Apply value-based controls to high-spending categories such as shopping by delaying large purchases to reduce impulsive spending.
3. By adjusting monthly budgets for seasonal spending such as holiday month to tighten control monthly spending.
4. Eliminate avoidable expenses such as bank fees by setting reminders or auto-pay setups.
5.

Tools

Microsoft Excel

Data Source - TD Bank Personal Data:

- Exported transaction records from personal banking statements (Excel / CSV)
- Manually tracked personal expense records using Google Sheets

Scope

- Time period: Oct - Dec, 2025
- Currency: CAD

What This Project Demonstrates

- This project demonstrates the ability to translate my transaction data into actionable insights for my future financial plan.
- It showcases the ability to connect data analysis with behavioral insights and concrete recommendations.
- Practiced data visualization to communicate analytical insights clearly and effectively.